

Atypical Antipsychotic Drug Use in the U.S. Outpatient Pediatric Population

Grace Chai, Hina Mehta, Dave Moeny, Laura Governale
Office of Surveillance and Epidemiology, CDER, FDA, Silver Spring, USA

Background

Pediatric atypical antipsychotic prescription use has been on the rise in the U.S. over the past decade. The broadened use of atypical antipsychotics particularly for off-label indications, such as Attention Deficit Disorders (ADD), is of concern.

Objective

To describe the outpatient use patterns from Y2002 to Y2009 in the pediatric population for selected atypical antipsychotics, with a focus on off-label use in ADD.

Methodology

Large outpatient retail prescription databases, SDI Vector One® National (VONA) and Total Patient Tracker (TPT) were used to describe prescription dispensing activity. SDI Physician Drug and Diagnosis Audit (PDDA), a physician survey database, was used to determine common diagnoses associated with atypical antipsychotic use in the pediatric population. Outpatient use of the selected atypical antipsychotics: aripiprazole, ziprasidone, quetiapine, olanzapine, risperidone, and paliperidone in pediatric patients aged 0-17 years were analyzed from Y2002-Y2009. Claims for atypical antipsychotic use associated with a diagnosis for ADD were obtained from IMS LifeLink™ Health Plan Claims Database, a longitudinal patient-centric claims database obtained from managed care plans in the U.S.. Inclusion criteria consisted of patient records with a claim for ADD diagnoses (ICD-9 CM 314.XX) and the first prescription claim for the selected atypical antipsychotics in pediatric patients for Y2009.

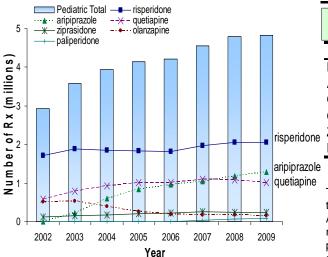
Results

Prescription and Patient Trends

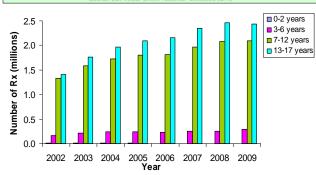
Atypical antipsychotic use in pediatric patients has increased over the past 8 years by 65% from 2.9 million to 4.8 million prescriptions from Y2002-Y2009 (Graph 1). The number of unique patients increased by 35% from 592,000 to 801,000 patients over the same years (data not shown). Patients aged 13-17 years accounted for the majority of pediatric use (Graph 2).

Graph 1: Dispensed atypical antipsychotic prescriptions in U.S. pediatric patients

Source: SDI VONA®: Extracted 02/10



Graph 2: Dispensed atypical antipsychotic prescriptions by patient age



Prescribers, Indications, and Use in ADD

The majority of atypical antipsychotic prescriptions were prescribed by psychiatrists (64%), although pediatricians (9.5%) were the second highest prescribing specialty in Y2009. The top indications associated with the pediatric use of the atypical antipsychotics were "Affect Psychoses" (21%) followed by "Bipolar Affective" (17%). The off-label indication "Attention Deficit Disorders" (12%) was the third most frequently associated indication in Y2009. Among ADD patients receiving atypical antipsychotics as first line treatment, risperidone was most commonly used to initiate therapy.

Top 5 prescribers of atypical antipsychotics to pediatric patients

	% of Use in Y2009
Psychiatry	64.1%
Pediatrics	9.5%
Nurse Practioner	7.7%
Unspecified	6.3%
General Practice/Family Medic	cine 4.9%
All Others	7.4%

Top 5 indications associated with the use of atypical antipsychotics in pediatric patients

Source: SDI PDDA Extracted 02/40

% of U	se in Y2009
2969 Affect Psychoses	21.1%
2967 Bipolar Affective	17.3%
3140 Attention Deficit Disorders	11.8%
2990 Infantile Autism	8.5%
3138 Oth Emotional Dis Child	4.5%
All Others	36.9%

Atypical antipsychotics used as 1st line ADD treatment in U.S. pediatric patients

	% of Rx of Y2009
Risperidone	40.6%
Aripiprazole	35.5%
Quetiapine	17.6%
Olanzapine	4.3%
Ziprasidone	1.2%
Paliperidone	0.8%

Conclusions

The findings confirm the overall increase in pediatric use and the off-label use of atypical antipsychotics, particularly for ADD. However, more research is needed to characterize the reasons for the increase in use and to determine if pediatric patients on atypical antipsychotics are being treated for ADD alone or for ADD as a co-morbidity.